**Creating Stories**

Lisa kept a diary of her family’s vacation trip. Her family drove along an interstate that had mile markers posted along the way.

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| **Vacation Trip** | | |
| Clock Time | Time since 8 a.m. | Total Miles |
| 8 am |  | 0 |
| 10 am |  | 100 |
| 10:30 am |  | 100 |
| 12 |  | 190 |
| 3 pm |  | 310 |

1. Complete the table above and draw the graph of this function. Label and scale the axes appropriately.



1. How far did the family travel after noon?
2. What was their speed (in miles per hour) in the afternoon?
3. What was their speed (in miles per hour) during the first two hours?
4. Using the graph, how long were they driving when Lisa’s family passed the 260-mile marker?
5. Using the graph, around how much time was Lisa’s family less than 50 miles away from home?
6. Did they stop to eat (or stop for another reason)? How long did they stop for?
7. Create a story describing Lisa’s family trip.
8. Write a piecewise function to represent the distance Lisa’s family travelled during their family trip. Show your work.
9. Use the piecewise function to determine the mile marker Lisa’s family passed at 1:30 p.m. (1:30 p.m. is 5.5 hours after 8 a.m.) Show your work.
10. Use the piecewise function to determine the mile marker Lisa’ family passed at 11 a.m. Show your work.
11. Write a brief new story that can be modeled with a piecewise function. Then write the function. Your function should have at least three parts.